Appln. No.: 10/785,084

Amendment under 37 C.F.R. § 1.116

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A zirconia sintered body comprising tetragonal zirconia, wherein a full width at half maximum at (111) plane of the tetragonal zirconia obtained by X-ray diffraction pattern measured under the following conditions is from 0.38 to 4 degree.

Conditions:

Radiation Source:

CuKa beam,

Voltage · Amplitude :

40 kV x 30 mA,

Monochromator:

Graphite,

Divergence Slit:

1.0 degree,

Scattering Slit:

1.0 degree,

Detector Slit:

0.3 degree,

Step Size:

0.2 degree,

Time/step:

continuous

Background Correction:

made,

Scan Speed:

0.4 degree/minute, and

Appln. No.: 10/785,084

Amendment under 37 C.F.R. § 1.116

wherein the zirconia sintered body contains A1₂O₃ and an amount of Al₂O₃ in the zirconia

sintered body is about 0.5% by weight or less, and wherein the zirconia sintered body contains a

stabilizer and an amount of the stabilizer in the zirconia sintered body is about 2% by weight or

more and 5.25% by weight or less, and the stabilizer is at least one selected from the group

consisting of Y2O3, CeO2, TiO2, Yb2O3, Er2O3, and Ho2O3 and

wherein an average grain size of the zirconia sintered body is from 0.01 to 0.2 µm and a density

of the zirconia sintered body is 6 g/cm³ or more.

2. (original): The zirconia sintered body according to Claim 1, wherein the full width at

half maximum at (111) plane of the tetragonal zirconia is from 0.4 to 2 degree.

3. (original): The zirconia sintered body according to Claim 1 or 2, wherein the full

width at half maximum at (111) plane of the tetragonal zirconia is 1 degree or less.

4. (original): The zirconia sintered body according to Claim 1, wherein a ratio of the

tetragonal zirconia in the zirconia sintered body is 90 % by volume or more.

5. (canceled).

6. (canceled).

3

Appln. No.: 10/785,084

Amendment under 37 C.F.R. § 1.116

7. (currently amended): The zirconia sintered body according to Claim 61, wherein the density of the zirconia sintered body is from 6 to 6.1 g/cm³.

- 8. (canceled).
- 9. (canceled).
- 10. (canceled).
- 11. (previously presented): A method for producing the zirconia sintered body, wherein the method comprises steps of

molding zirconia powder having an average particle diameter of from 0.1 to 0.6 μ m, a maximum particle diameter of 5 μ m or less and a substantially polyhedral shape, and then sintering the molded green body under the temperature of from 1200 to 1400 °C.

- 12. (original): The method according to Claim 11, wherein the zirconia powder contains monoclinic crystal.
- 13. (original): The method according to Claim 12, wherein a ratio of the monoclinic crystal in the zirconia powder is 70 % by volume or more.